

Exhibit 12
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MediaRouteProvider overview

The Android media router framework allows manufacturers to enable playback on their devices through a standardized interface called a **MediaRouteProvider** (/reference/androidx/mediarouter/media/MediaRouteProvider). A route provider defines a common interface for playing media on a receiver device, making it possible to play media on your equipment from any Android application that supports media routes.

This guide discusses how to create a media route provider for a receiver device and make it available to other media playback applications that run on Android. In order to use this API, you should be familiar with the key classes **MediaRouteProvider** (/reference/androidx/mediarouter/media/MediaRouteProvider), **MediaRouteProviderDescriptor** (/reference/androidx/mediarouter/media/MediaRouteProviderDescriptor), and **RouteController** (/reference/androidx/mediarouter/media/MediaRouteProvider.RouteController).

Overview

The Android media router framework enables media app developers and media playback device manufacturers to connect through a common API and common user interface. App developers that implement a **MediaRouter** (/reference/androidx/mediarouter/media/MediaRouter) interface can then connect to the framework and play content to devices that participate in the media router framework. Media playback device manufacturers can participate in the framework by publishing a **MediaRouteProvider** (/reference/androidx/mediarouter/media/MediaRouteProvider) that allows other applications to connect to and play media on the receiver devices. Figure 1 illustrates how an app connects to a receiving device through the media router framework.

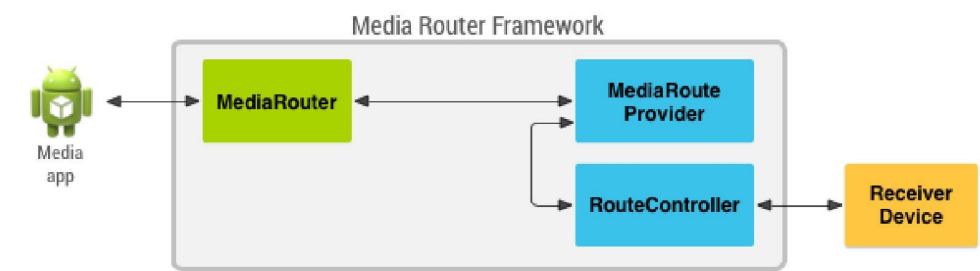


Figure 1. Overview of how media route provider classes provide communication from a media app to a receiver device.

When you build a media route provider for your receiver device, the provider serves the following purposes:

- Describe and publish the capabilities of the receiver device so other apps can discover it and use its playback features.
- Wrap the programming interface of the receiver device and its communication transport mechanisms to make the device compatible with the media router framework.

